Final
Five-Year Review Report

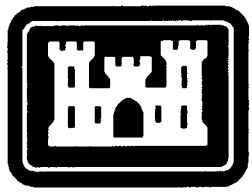
First Five-Year Review Report
Prepared for EPA Region 4

For

Beaunit Corp. (Circular Knit & Dyeing Plant)
(EPA ID #: SCD000447268)
Fountain Inn
Greenville County, South Carolina

September 2003

Prepared by:
US Army Corps of Engineers
Savannah District
P. O. Box 889
Savannah, GA 31402-0889



Approval Signature Sheet

Approved by:

Winston A. Smith,
Director, Waste Management Division
US EPA, Region 4

Date:

9/30/03

Table of Contents

Tables

Attachments

List of Acronyms

ARAR	Applicable or Relevant and Appropriate Requirement
CD	Consent Decree
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COC	Chain of Custody
EPA	Environmental Protection Agency
EPD	Georgia Environmental Protection Division
GCL	Geosynthetic Clay Liner
MCL	Maximum Contaminant Level
MCLG	Maximum Contaminant Level Goal
MDL	Method Detection Limit
NCP	National Oil and Hazardous Substances Pollution Contingency Plan
NPL	National Priorities List
O&M	Operations and Maintenance
OUs	Operable Units
PCE	tetrachloroethene
PRP	Potentially Responsible Party
QA/QC	Quality assurance / Quality Control
RA	Remedial Action
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI/FS	Remedial Investigation/ Feasibility Study
ROD	Record of Decision
SARA	Superfund Amendment and Reauthorization Act
SVOCs	Semi-Volatile Organic Compounds
TCE	trichloroethene
UAO	Unilateral Administrative Order
USACE	U.S. Army Corps of Engineers
VOCs	Volatile Organic Compounds

Executive Summary

This is the first five-year review for the Beaunit Corp. (Circular Knit & Dyeing Plant) Superfund Site. The trigger for this statutory review is the initiation of the remedial action as shown in EPA's WasteLAN database: 9 September 1998. Hazardous substances, pollutants, or contaminants are left on site above levels that allow for unlimited use and unrestricted exposure. All remedies have been constructed and continue to operate as intended.

Based on the data reviewed, the site inspection and interviews with the Potentially Responsible Party (PRP), the remedy is functioning as intended by the Record of Decision (ROD). The major components of the remedy are drainage control, grading of site, Resource Conservation and Recovery Act (RCRA) clay cap, institutional controls (specifically deed restrictions for groundwater use), and groundwater, surface water, and sediment monitoring. The remedial actions at the site are expected to be protective of human health and the environment upon attainment of groundwater cleanup goals. Contaminant levels in groundwater appear to be declining to acceptable risk based concentrations. Applicable or Relevant and Appropriate Requirements (ARARs) for drinking water and surface water were also evaluated to determine if the remedy is still protective. Based on the ARAR review, no values of drinking water standards (i.e. MCLs) have changed to any degree that would negatively affect the protection of the remedy. Ground-water contamination at the site persists above Maximum Contaminant Levels (MCLs) for some parameters. The six groundwater contaminants (as of January 2003 sampling) that were above regulatory limits remain stationary and at extremely low concentrations with the exception of Manganese. However, Manganese is a secondary drinking water standard, not a primary Standard. Benzene was a contaminant of concern in the ROD and remains present in the study area at levels exceeding the MCL. Benzene is not present at levels exceeding the MCL on the former wastewater lagoon location, where the remedial action was conducted. Also, three of the contaminants that are present above the MCLs were not in the ROD as contaminants of concern. These three contaminants are 1,2-dichloropropane, bis(2-ethylhexyl) phthalate, and thallium. Three surface water samples had concentrations of Thallium above the MCLs.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site name: Beaunit Corp. Circular Knit & Dyeing Plant (206 Georgia Ave., Fountain Inn, SC 29644)		
EPA ID: SCD000447268		
Region: IV	State: SC	City/County: Fountain Inn, Greenville County
SITE STATUS		
NPL status: Currently on the Final NPL		
Remediation status (under construction, operating, complete): Complete		
Multiple OU's*: NO Construction completion date: 25 September 1998		
Has site been put into reuse? NO		
REVIEW STATUS		
Lead agency (EPA, State, Tribe Federal agency): EPA		
Author name: Sherry McCumber-Kahn (some modification by Steven Sandler, EPA RPM		
Author title: Environmental Engineer	Author affiliation: US Army Corps of Engineers, Savannah District	
Review period: 31 March 2003 to 30 June 2003		
Date(s) of site inspection: 14 April 2003		
Type of Review: Post- SARA		
Review Number: 1 (first)		
Triggering action event: Prelim Close-out Report Completion Date		
Trigger action date (from WasteLAN): 09/25/1998		
Due date: 6/30/ 2003		

* **"OU" refers to operable unit.**

Five –Year Review Summary Form, cont,d.

Issues:

Based on the data reviewed, the site inspection and interviews with the PRP, the remedy is functioning as intended by the ROD. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. ARARs for drinking water and surface water were evaluated to determine if the remedy is still protective. Based on the ARAR review, no values of drinking water standards (i.e. MCLs) have changed to any degree that would negatively affect the protection of the remedy. Ground-water contamination at the site persists above MCLs. The six contaminants that were above regulatory limits remain stationary and at extremely low concentrations with the exception of Manganese. However, Manganese is referenced by secondary drinking water standards only. Also, three of the contaminants that are above the MCLs do not appear in the ROD as contaminants of concern. Three surface water samples had concentrations of Thallium above the MCLs. However, Thallium was not listed as a contaminant of concern in the ROD.

Recommendations and Follow-up Actions:

Continued groundwater monitoring is required to ensure contaminants are attenuating naturally. Additional field work is necessary to investigate the persistence of benzene (in the area between MW-4S and MW-5S). SCDHEC has also requested the investigation of arsenic detections around MW-5S, SW-2, and SD-2. A supplemental work plan to accomplish these tasks should be prepared within three months following the publication of this Five Year Review.

Protectiveness Statements:

The remedial actions at the site are expected to continue to be protective of human health and the environment. The majority of contaminants of concern detected in the groundwater continue to decline and should reach acceptable risk based concentrations through natural attenuation.

Other Comments:

None

I. Introduction

The United States Environmental Protection Agency (EPA) Region IV has conducted a five-year review of the remedial actions implemented at the Beaunit Corp. Circular Knit & Dyeing Plant. The U.S. Army Corps of Engineers, Savannah District, provided technical support for the review. This review was conducted from March 2003 through June 2003. This report documents the results of that review. The purpose of a five-year review is to determine whether the remedy at a site is protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in Five-Year Review reports. In addition, Five-Year Review Reports identify issues found during the review, if any, and identify recommendations to address them.

EPA conducted this review pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP), section 300.430(f)(4)(ii). Because a remedial action was selected that allows contaminants to remain on site above levels that allow for unlimited use and unrestricted exposure, EPA is required to review such action no less than every five years after the initiation of the selected remedial action. The statutory five-year review requirement was added to CERCLA as part of the Superfund Amendments and Reauthorization Act of 1986 (SARA). EPA conducts statutory reviews when both of the following conditions are true: 1) upon completion of the remedial action, hazardous substances, pollutants or contaminants will remain above levels that allow for unlimited use and unrestricted exposure; 2) the record of decision (ROD) for the site was signed on or after 17 October 1986 (the effective date of SARA).

This is the first five-year review for the Beaunit Corp. Circular Knit & Dyeing Plant Superfund Site. The trigger for this statutory review is the initiation of the remedial action, which corresponds to the preliminary close-out, as shown in EPA's WasteLAN database: 25 September 1998. Hazardous substances, pollutants, or contaminants are left on site above levels that allow for unlimited use and unrestricted exposure. All remedies have been constructed and continue to operate as intended.

II. Site Chronology

Table 1 lists the chronology of events for the Beaunit Corp. Circular Knit & Dyeing Plant Superfund Site.

Table 1: Chronology of Site Events

Event	Start Date	Completion Date
Discovery		06-01-1981
Preliminary Assessment		04/01/1984
Site Inspection		01/24/1986
Proposal to NPL		06/24/1988
NPL RP Search		08/26/1988
Final Listing NPL		02/21/1990
RI/FS Negotiations	02/21/1992	02/21/1992
Admin Order on Consent		02/21/1992
Removal Assessment	07/08/1992	07/08/1992
Admin/Voluntary Cost Recovery		05-25-1994
Integrated Assessment	09-21-1994	09-21-1994
PRP RI/FS	02/21/1992	09/29/1995
Record of Decision		09/29/1995
Administrative Records	05/04/1993	10/06/1995
RD/RA Negotiations	09/29/1995	05/24/1996
Consent Decree	05-24-1996	12-18-1996
PRP RD	09/20/1996	03/06/1998
Prelim Close-Out Report Prepared		09/25/1998

III. Background

The Beaunit Circular Knit and Dyeing Corp. site occupies one and three-tenths acres on the northwest side of Fountain Inn, South Carolina. Fountain Inn is 15 miles southeast of the city of Greenville. The site is a former wastewater lagoon. The lagoon and surrounding areas served a former knitting, dyeing, and finishing plant about 400 yards east of the site. The wastewater lagoon was built in 1951 and ceased operations in 1977 when the adjacent plant connected to municipal sewage. In 1980 the wastewater treatment structures around the lagoon were demolished and the lagoon partially filled in. The site is currently inactive and enclosed within a secured fence.

Land use within one mile of the site includes small farms, residential areas, several businesses, and industrial facilities. Valley View Apartments, power lines, and a small pond are within a quarter of a mile of the site along Valley View Road. Water is available to area residents and businesses through a public water supply system. No groundwater supply wells exist at the site or in the vicinity.

A wastewater treatment plant, which consisted of a modified activated sludge system, was built at the site location in 1951. It was constructed to treat industrial wastewater from a knitting, dyeing, and finishing plant that was located approximately 400 yards to the east. The treatment plant units included a bar screen, an aeration basin (lagoon), an aeroaccelerator, a clarifier, and a post aeration tank. The original design of the plant was to provide treatment at an average flow rate of 300,000 gallons per day of textile wastewater. The lagoon had a volumetric capacity of 430,100 gallons and received wastewater via a pipeline (the influent pipe).

In 1973, wastewater from the plant was described as passing through an oil separator into the lagoon. The lagoon was equipped with five aerators, which were also used to supply air to the aeroaccelerator. The wastewater discharge may also have been treated with coagulants and neutralizers. A suction pump was operated to return collected sludge from the aeroaccelerator to the lagoon. A sludge drying bed, located approximately 20 yards north of the lagoon, was used to dry accumulated waste sludge from the treatment operation. The lagoon was designed to discharge into an unnamed creek that is located to the west end of the lagoon. There may also be a pipeline that bypassed flow around the lagoon and discharged flow to the unnamed creek.

The lagoon was originally put into operation in October 1952, and accepted treated wastewater from knitting and dyeing operations for a textile plant manufacturing fabric for wearing apparel. However, the following substances were germane to the textile knitting industry and may have been used: soluble and insolubilized wetting agents, dispersing agents, surfactants, defoamers, soaps, detergents, weightors, direct, vat, napthol, acid, and disperse dyes and pH adjusters. Although these materials may have been used in the process, it is unlikely that all of them would be present in the rinses. Others reacted and were neutralized or precipitated out during the dyeing process, prior to the subsequent final treatment through the wastewater treatment system. Many substances were absorbed into the materials being dyed, particularly the dyes.

In 1979 the plant operators determined that the former wastewater treatment structures on the site should be razed, and that the then-existing lagoon be filled. The City of Fountain Inn demolished

a small brick building and miscellaneous structures on site, graded the site, and partially filled the lagoon with the demolition debris and surrounding soil. Additional fill from the tennis ball manufacturing facility was placed in the lagoon and was comprised of thin sheets of blue polyethylene, rubber tennis ball and racquet ball flashing and cores, tennis and racquet ball containers, excess tennis ball felt, golf balls, old roofing material, and wooden pallets. (Beaunit Corp. Circular Knit & Dyeing Plant Abstract to ROD http://cfpub.epa.gov/superrods/rodinfo.cfm?mRod=04032071995ROD254)

IV. Remedial Actions

Remedy Selection

The original selected Record of Decision was signed on September 29, 1995. The selected remedial action for this site included drainage control, grading the site, capping the fenced lagoon area, implementing institutional controls through the use of deed restrictions, and establishing a program to monitor groundwater, surface water, and sediment. The remedy was designed to ensure that there is no exposure to or migration of contaminants.

The major components of the selected remedy as stipulated in the Record of Decision include:

- Drainage control;
- Grading of site;
- A RCRA Solid Waste Soil and Clay Cap placed over site;
- Groundwater use restrictions through institutional controls, specifically deed restrictions; and
- Groundwater, Surface Water, and Sediment Monitoring Program.

The estimated present worth cost for this remedial action is $748,625 high end and $349,159 low end (including O&M), and the estimated total construction cost was an additional $271,000.

Remedy Implementation

Remedy Component 1- Drainage Control
During the remedial action, the site was graded to divert surface water away from the capped area. In addition, an earthen berm and ditch were constructed to divert surface water away from and around the site. This was designed to prevent surface water run-off from the site from causing excessive soil erosion and contaminant transport.

Remedy Component 2 – Grading of Site
During the remedial action, a hot spot at pipeline location P5 was excavated. The excavated soil was tested and found to be non-hazardous (passed Toxicity Characterization Leaching Procedure (TCLP)) and used to backfill lagoon area within fenced area. The site was then graded to divert surface water away from the area where clay cap was to be placed. This was also designed to control surface water runoff and to reduce erosion.

Remedy Component 3 – Clay Cap
The ROD initially determined that a permeability of 1×10^{-5} cm/sec would be needed for the clay cap. That permeability rate was subsequently changed to 1×10^{-9} cm/sec in order to maximize protectiveness of the cap. A low permeability Geosynthetic Clay Liner (GCL) was installed over the backfilled area. Eighteen inches of clay and 12 inches of native soil were placed over the cover. A vegetative cover was then established over the topsoil layer. Landfill cover and seep inspections were conducted regularly for the duration of the RA program.

Remedy Component 4 – Institutional Controls
A security fence had previously been erected around the site, with warning signs posted to limit access by unauthorized personnel. Deed restrictions have been placed on the site, restricting future development on the capped lagoon, as of September 9, 1998, as required by the ROD.

Remedy Component 5 – Monitoring Program
The ground-water monitoring program consisted of semi-annual groundwater, surface water, and sediment monitoring for a period of two years. Annual monitoring has been conducted for the final three years. Groundwater samples were collected from six monitoring wells (MW1S, MW1D, MW4S, MW5S, MW5D, and MW6S). Co-located surface water and sediment samples were taken from three locations along the unnamed creek that flows into Howards Branch. All samples were analyzed for VOCs, SVOCs, Pesticides, PCBs, TAL metals, and Cyanide.

Performance Standards
The EPA required that the preliminary remedial goals (PRGs) be referred to as remedial goal options (RGOs). The RGOs for groundwater at the site were developed for the future resident and they were calculated for the contaminants of concern in groundwater using the following equation: RGO = (TR x EC)/CR. Where RGO = Remedial Goal Options; TR = Target risk level (HQ = 1.0 for noncarcinogenic effects and risk level = 1E-06, 1E-06, and 1E-04 fir carcinogenic effects); EC = Exposure concentration in soil and groundwater; and CR = Calculated risk level. The RGOs for soil were computed using the same equation. The cleanup goals for soil and groundwater are shown on the following tables. The cleanup goals for surface water were considered to be the same as groundwater as implied by the ROD.

Table 2
Cleanup Levels for Soil

Contaminant	Risk-Based Soil Action Level (mg/Kg)	ARAR-Based Soil Action Level (mg/Kg)
Arsenic	0.1	NA
Nickel	4.4	NA

Table 3
Cleanup Levels for Groundwater & Surface Water

Contaminant	Risk-Based GW Action Level (ug/L)	ARAR-Based GW Action Level (ug/L)
Benzene	2 to 200	5
2-methylnaphthalene	3	NA
Naphthalene	3	NA
Beryllium	0.001 to 1	4
Chromium VI	40	100 (Tot Cr)
Manganese	40	200

V. Progress Since the Last Review

This was the first five-year review for the site.

VI. Five-Year Review Process

The purpose of a five-year review is to determine whether the remedy at a site is protective of human health and the environment. A five-year review does not reconsider decisions made during the selection of the remedy, but evaluates the implementation and performance of the selected remedy.

Document Review

On 31 March 2003, Sherry McCumber-Kahn, Environmental Engineer, and Mark Harvison, Chemist, both with the US Army Corps of Engineers (USACE), Savannah District, met with the EPA Remedial Project Manager, Steven Sandler, and began reviewing the project files. Documents that were reviewed were related to site investigations, feasibility study, remedial design, the ROD, construction reports, and monitoring data. The complete list of documents is included as Attachment A.

Data Review

The Beaunit Corp. Circular Knit & Dyeing Plant EPA Site has had eight sampling events performed by taking samples from six monitoring wells and three collocated surface water and sediment locations along the unnamed creek that flows into Howards Branch since June 1998. Based on the data from the latest round of monitoring, January 2003, the following contaminants were found to be above action levels: 1,2-dichloropropane, benzene, bis(2-ethylhexyl)phthalate, Manganese, and Thallium. Thallium was only detected in surface water. The measured concentrations along with the action levels are arranged in the following table.

Table 4
Contaminant Levels

Contaminant	Measured Concentration (ug/L)	Risk-Based Action Level (ug/L)	ARAR-Based Action Level (ug/L)
1,2-dichloropropane	8.6	NA	5
benzene	21	2 to 200	5
bis(2-ethylhexyl)phthalate	19	NA	6
Manganese*	278, 1990, 66, 492	40	200
Naphthalene	21	3	NA
Thallium**	3, 403, 3	NA	2

*Concentrations found at four different wells: MW 4S, 5S, 5D, & 6 respectively.
**Concentrations found at three different locations: SW 1, SW 2, & SW 3 respectively.

The constituent 1,2-dichloropropane started out low (6ug/L), went up (highest 25.9ug/L), and has been on a downward trend since. Benzene started out at 14.9ug/L, remained steady for the next three sampling events, increased to a high of 28 ug/L, came back down to 21 ug/L, and has remained constant for three sampling events. The concentrations are on a downward trend based

on previous sampling data. This was the first time that the concentration of bis(2-ethylhexyl)phthalate was not flagged with a J or a U. The Manganese results do not exhibit an apparent pattern. Also, Manganese is referenced by secondary drinking water standards only. Thallium was only detected in surface water. Two of the concentrations were barely above the MCL. The detection with the highest concentration was actually located between the other two locations in the creek, possibly indicating a localized event. The constituents 1,2-dichloropropane and bis(2-ethylhexyl)phthalate were not listed as contaminants of concern. The 1,2-dichloropropane was detected at an upgradient well. It has not migrated from that location. The bis(2-ethylhexyl)phthalate was found in monitoring well MW5S. This particular well is downgradient of the site, about 240 feet away and across Valley View Road.

Site Inspection

An inspection of the Beaunit Corp. EPA site was performed by Sherry McCumber-Kahn and Mark Harvison, both with the US Army Corps of Engineers (USACE), Savannah District, on 14 April 2003. The current owner, Wilson Sporting Goods, performed the inspection within two days of regular maintenance. Steven Sandler, Remedial Project Manager with EPA Region 4 and Ralph Crackow, a Wilson employee were also on-site during the inspection. The purpose of the inspection was to assess the protectiveness of the completed remedy. The inspection generally included visual observation of the perimeter fencing used to restrict access, the condition of the cap, and inspection of the areas immediately adjacent to former sludge lagoon. The entire area inside the fenced boundary was visually inspected. The site inspection included both the areas of the geosynthetic clay liners (GCL) or cap and the areas immediately surrounding the liners. All areas inspected had good grass cover. No undesirable vegetation was observed. The grass cover and the general appearance of the site along with adjacent sampling locations can be seen on Photographs 1 through 9 in Attachment B to this report.

The protective measures employed, perimeter fencing and the GCL/cap, appear to be in good condition and performing their intended purpose. The cap and surrounding area appeared undisturbed. There were no observed uses of ground water in the immediate vicinity of the landfill.

Interviews

On 14 April 2003, Sherry McCumber-Kahn and Mark Harvison, visited the Beaunit Corp. site. Ralph Crackow was interviewed on the site. Mr. Crackow was familiar with the remedial action and has been involved in the regular maintenance of the site. He was not aware of any problems on the site and did not have concerns. Roger Case, the Director of Public Works for the City of Fountain Inn, was briefly interviewed for any information that he might have about the site, in particular the deed restrictions. He showed us the land survey map of the site, but had nothing further to add. No other individuals familiar with the site and its status were interviewed.

A visit to the local library was made to determine whether repository of materials, concerning the Beaunit Corp. site, was being maintained. They were relatively complete and very orderly.

VII. Technical Assessment

Question A: Is the remedy functioning as intended by the decision documents?

The review of documents, ARARs, risk assumptions and analytical data and site inspections indicate the remedy is functioning as intended by the ROD. Ground-water contamination at the site persists above action levels. However, the levels are extremely low and show no sign of migration. The cap is in good condition and should continue to prevent water from infiltrating any remaining soil contamination.

Question B: Are the exposure assumptions, toxicity data, cleanup levels and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

There have been no changes in the site or surrounding properties that would affect the protectiveness of the remedy.

ARARs identified and listed in the Beaunit Corp. Circular Knit & Dyeing Plant ROD addressed a broad range of federal and state chemical specific and action specific ARARs. As stated in the 5-year review guidance, the focus of an ARAR review should be limited to those ARARs that have the potential to impact human health and the environment and specifically address the protectiveness of the remedy. To that end, ARARs referenced in the ROD that were associated with construction or operation and maintenance activities for the remedy are not addressed in this review. Those ARARs associated with the protection of the remedy are the specific focus of the review.

Of the ARARs listed in the amended ROD, the following Federal and State chemical-specific and action-specific ARARS were carried forward for assessment.

Federal chemical-specific ARARs

Safe Drinking Water Act (SDWA) Maximum Contaminant Levels (40 CFR 141 and 143) – Standards for select organic compounds, minerals, or metals that are enforceable standards for public drinking water systems. 40 CFR 141 and 143

Clean Water Act Ambient Water Quality Criteria requirements – Suggested ambient standards for the protection of human health and aquatic life. Presented in CERCLA Compliance Manual, 33 USC 300

Federal action-specific ARARs

Clean Water Act (33 USC 1251-1376) – National Pollutant Discharge Elimination System, 40 CFR 125.

State chemical-specific ARARs

South Carolina NPDES Permit Regulations – State-mandated ambient water quality standards with respect to state-wide surface waters and toxic pollutant effluent discharge standards. Title 61, Chapter 9, Regulation 61-9.129.

South Carolina Safe Drinking Water Regulations (Chapter 61) – General rules and standards applicable to all waters, Regulation 68, section E; Class descriptions and specific standards for surface waters, Regulation 68, section F; Class descriptions and specific standards for groundwaters, Regulation 68, section G; Classified Waters, Regulation 69.

South Carolina Hazardous Waste Management Regulations (Chapter 61) – Groundwater Protection: concentration Limits, Regulation 61-79.264 Subpart F Section 264.94.

State action-specific ARARs

South Carolina Pollution Control Act (Title 48, Chapter 1, Section 48-1-110)

South Carolina Groundwater Use Act (Title 49, Chapter 5)

South Carolina Safe Drinking Water Regulations (Chapter 61)

The State of South Carolina has adopted the federal drinking water standards in their entirety. As can be seen from the previous table, little change has occurred regarding values originally identified in the ROD and the currently promulgated standards.

The exposure assumptions used to develop the Human Health Risk Assessment included both current exposures (trespasser) and potential future exposures (adult resident, child resident). These assumptions are considered to be conservative and reasonable in evaluating risk and developing risk based cleanup levels. No changes to these assumptions, or the cleanup levels developed from them, are warranted. There has been no change to the standardized risk assessment methodology that could affect the protectiveness of the remedy.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

No additional information has been identified that would call into question the protectiveness of the remedy.

Technical Assessment Summary

Based on the data reviewed, the site inspection and interviews with the PRP, the remedy is functioning as intended by the ROD. There have been no changes in the physical conditions of the site that would affect the protectiveness of the remedy. ARARs for drinking water and surface water were evaluated to determine if the remedy is still protective. Based on the ARAR review, no values of drinking water standards (i.e. MCLs) have changed to any degree that would negatively affect the protection of the remedy. Ground-water contamination at the site persists above action levels and requires continued monitoring to ensure it attenuates as expected.

VIII. Issues

Issue	Currently Affects Protectiveness (Y/N)	Affects Future Protectiveness (Y/N)
Ground-water contamination still detected above Action Levels	N	N

IX. Recommendations and Follow-Up Actions

Issue	Recommendation/ Follow-Up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness (Y/N)	
					Current	Future
Ground-water contamination	Continue monitoring to ensure degradation of ground-water contamination.	PRP	EPA		N	N
Persistence of benzene	Further investigation to determine source of benzene.	PRP	EPA		N	N

X. Protectiveness Statement

The remedial actions at the site are expected to be protective of human health and the environment upon attainment of groundwater cleanup goals. Contaminant levels in ground water appear to be declining to acceptable risk based concentrations. Continued groundwater monitoring is required to ensure contaminants are attenuating naturally.

XI. Next Review

The next five-year review for the Beaunit Corp. Circular Knit & Dyeing Plant Superfund Site is required by September 2008, five years from the date of this review. This review should ensure any contaminants still detected in the monitoring well network have declined to the required cleanup levels.

Attachment A
List of Documents Reviewed

1. Preliminary Site Characterization Summary Remedial Investigation of the Beaunit Corp. Circular Knit and Dyeing Plant Site, Fountain Inn, South Carolina, February 1993.

2. Document Control No. 4400-25-ADAR (Baseline Risk Assessment), Revision 0, Beaunit Corporation Site, Fountain Inn, South Carolina, Work Assignment No. 25-497J, June 1993.

3. Technical Memorandum 2, Ecological Risk Assessment, Revision 0, Document Control Number 4400-25-ACYU, Beaunit Circular Knitting & Dyeing Site, Fountain Inn, South Carolina, June 1993.

4. Technical Memorandum 3, Revision 0, Document Control Number 4400-25-ACUR, Beaunit Circular Knit & Dyeing Plant, Fountain Inn, South Carolina, April 1993.

5. Final Agency Report – Volume I of II, Remedial Investigation Report for the Beaunit Corp. Circular Knit and Dyeing Plant Site, Fountain Inn, South Carolina, August 1993.

6. Final Agency Report – Volume II of II, Remedial Investigation Report for the Beaunit Corp. Circular Knit and Dyeing Plant Site, Fountain Inn, South Carolina, August 1993.

7. Revised Agency Report – Feasibility Study Report for the Beaunit Corp. Circular Knit and Dyeing Plant Site, Fountain Inn, South Carolina, May 1994.

8. Addendum to Revised Agency Report and Response to Comments - Feasibility Study Report for the Beaunit Corp. Circular Knit and Dyeing Plant Site, Fountain Inn, South Carolina, August 1994.

9. Final Remedial Design: Construction Cost Estimate and Construction Schedule, Beaunit Corp. Circular Knit & Dyeing Plant NPL Site, September 1997.

10. Storm Water Management Plan for Remedial Action at the Beaunit Corp. Circular Knit & Dyeing Plant NPL Site, Greenville County, South Carolina, May 1998.

11. Health and Safety Plan for Remediation of the Beaunit Corp. Circular Knit and Dyeing Plant Site, Fountain Inn, South Carolina, May 1998.

12. Agency Report First Post-Construction Monitoring Results, Beaunit Corp. Circular Knit & Dyeing Plant NPL Site, Parsons Engineering, June 1998.

13. Agency Report Second Post-Construction Monitoring Results, Beaunit Corp. Circular Knit & Dyeing Plant NPL Site, Parsons Engineering, February 1999.

14. Agency Report Third Post-Construction Monitoring Results, Beaunit Corp. Circular Knit

& Dyeing Plant NPL Site, Parsons Engineering, June 1999.

15. Agency Report Fourth Post-Construction Monitoring Results, Beaunit Corp. Circular Knit & Dyeing Plant NPL Site, Parsons Engineering, January 2000.

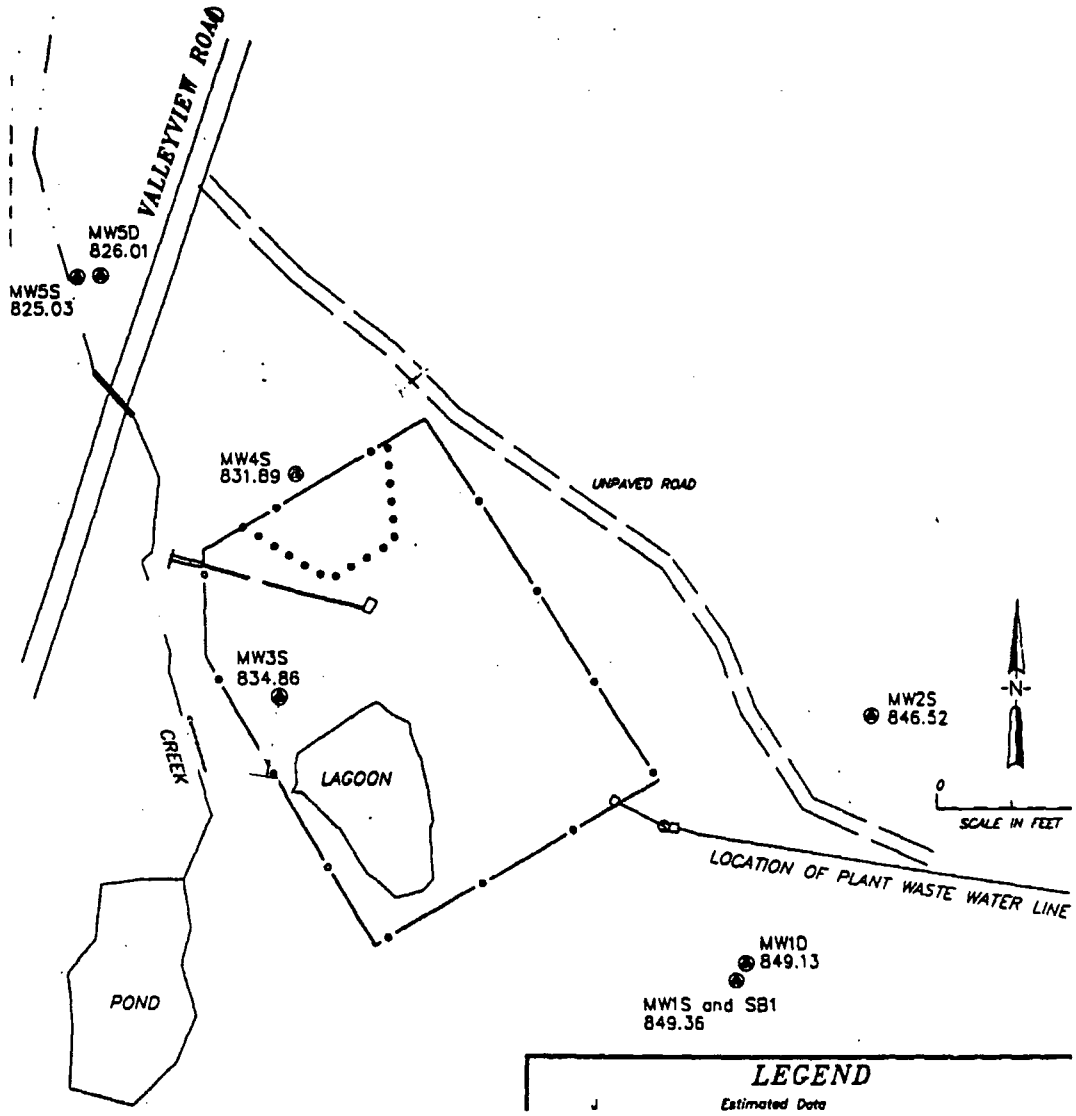
16. Agency Report Seventh Post-Construction Monitoring Results, Beaunit Corp. Circular Knit & Dyeing Plant NPL Site, Parsons Engineering, February 2002.

17. Agency Report Eighth Post-Construction Monitoring Results, Beaunit Corp. Circular Knit & Dyeing Plant NPL Site, Parsons Engineering, March 2003.

Attachment B

Site Map and Images Documenting Site Conditions

Beaunit Circular Knit & Dyeing NPL Site Site Map



LEGEND

J *Estimated Data*

Samples were analysed for parameters an Target Analyts Lisl (TAL) and Target Compound Ust (TCL)

VOA Yokfilo oryenie anoysis

SVOA Snnlvolwme arg,onc enafy~sw~.

PCsa/Post Polyc~ BgaMgyls/Pptiei

• • • • • • / Aporw, Location of Former Sbdge Dying, Bed _ . . - Crook chain Link isnn

- 1 Dsnafss WON Number YWJS~ Ifarifdring, UW - S Denotes Shopor Completion - D Donates Deeper Completion

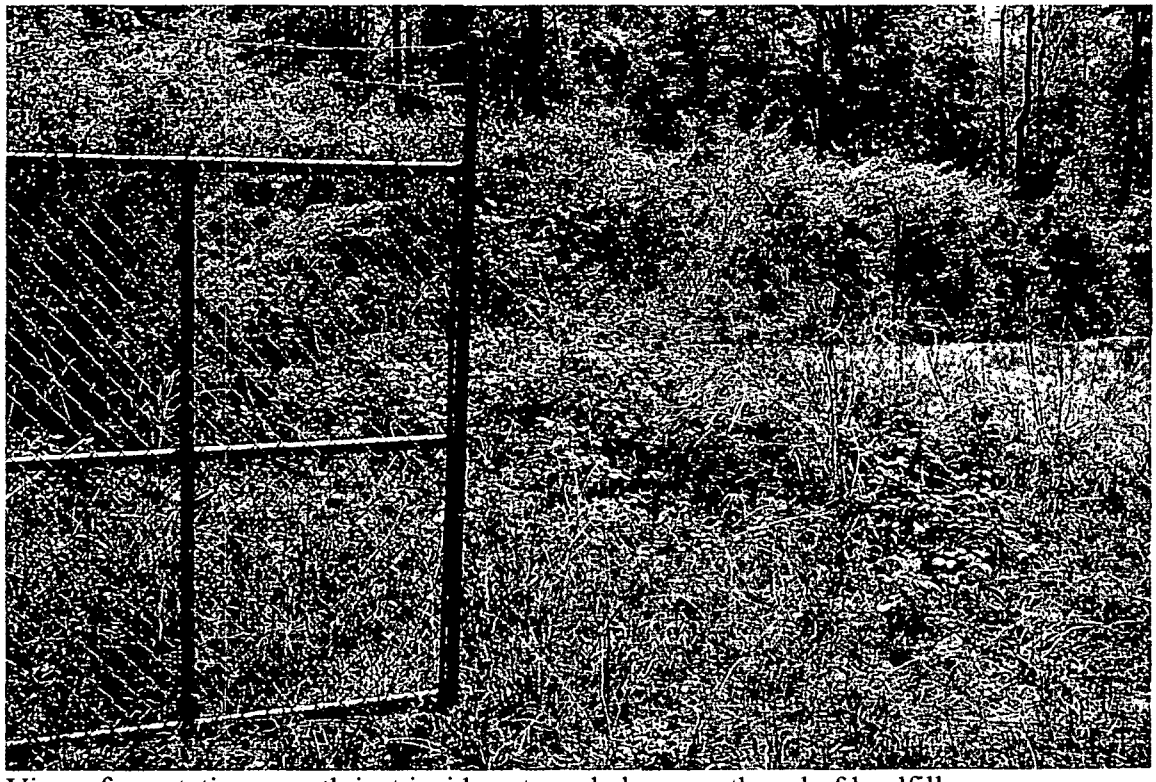
Beaunit Circular Knit & Dyeing NPL Site

View of monitoring well MW34 on west side of landfill area.

View of landfill from entry gate.

View of berm and north end of landfill area from just inside gate.

View of berm, south end, and west side of landfill area from inside gate.



View of vegetative growth just inside gate and along south end of landfill.

View of berm and vegetative growth along northeast side of landfill.

View of berm, gate, and vegetative growth along southeast side of landfill.

View of monitoring wells MW5s and MW5d along with Steven Sandler, EPA representative.

View of unnamed tributary northeast of Valleyview Rd. where surface water samples are taken.